

Remarks

Claims 13, 15, 20, 21, 23-25, and 27-42 are pending in the subject application. Applicant acknowledges that claims 31-42 have been withdrawn from further consideration as being drawn to a non-elected invention. By this Amendment, claims 13, 15, 20, 21, 23-25, and 27-30 have been amended, claims 31-42 have been cancelled, and new claims 43-58 have been added. Support for the new claims and amendments can be found throughout the subject specification and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 13, 15, 20, 21, 23-25, 27-30, and 43-47 are currently before the Examiner. Favorable consideration of the pending claims is respectfully requested.

By this Amendment, Applicant has amended the "Brief Description of the Sequences" section and the sequence listing for SEQ ID NO:5 and have added new SEQ ID NOs: 18 and 19. The sequence for SEQ ID NO:5 shown in the "Brief Description of the Sequences" shows a glycine at the initial (amino terminus) position. New SEQ ID NOs: 18 and 19 find support in SEQ ID NOs: 12 and 13, respectively, and in the subject specification at page 11, lines 26-30, wherein the specification contemplates any nucleic acid sequence encoding SEQ ID NO:5 or 6. Thus, there is support for the sequences and no new matter has been entered. Accordingly, entry and consideration of the amendments and replacement sequence listing is respectfully requested.

Claim 13 has been objected to for encompassing multiple inventions as indicated in the Restriction Requirement. By this Amendment, Applicant has amended claim 13 to remove non-elected subject matter. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Claims 13, 15, 20, 21, and 23-24 are rejected under 35 USC §102(b) as being anticipated by Lin *et al.* (1998) and as evidenced by Lin *et al.* (1995). The Examiner asserts that the Lin *et al.* (1998) reference teaches a pharmaceutical composition comprising a nucleic acid sequence encoding a 28-amino acid peptide hormone ANP, adenoviral expression vectors comprising the nucleic acid, and host cells comprising the vector. Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the Lin *et al.* reference does not teach or suggest Applicant's claimed invention. As an initial matter, Applicant notes that SEQ ID NO:4 has been deleted from the pending claims. In addition, the Lin *et al.* reference does not teach or suggest a

natriuretic hormone peptide, or a nucleic acid encoding the same, wherein the peptide has a glycine amino acid at the amino terminus of the peptide. Moreover, the Lin *et al.* reference does not teach or suggest a natriuretic hormone peptide having the amino acid of SEQ ID NO:5 or SEQ ID NO:6. Thus, the Lin *et al.* reference does not teach Applicant's claimed invention. As the Examiner is aware, in order to anticipate, a single reference must disclose within the four corners of the document each and every element and limitation contained in the rejected claim. *Scripps Clinic & Research Foundation v. Genentech Inc.*, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). The Lin *et al.* reference fails to teach or suggest every element of Applicant's claimed invention. Accordingly, reconsideration and withdrawal of the rejection under 35 USC §102(b) is respectfully requested.

Claims 20, 21, 23-25, and 28-30 are rejected under 35 USC §102(b) as being anticipated by Seidman *et al.* (1984). The Examiner asserts that the Seidman *et al.* (1984) reference teaches an expression vector comprising a nucleic acid sequence encoding a natriuretic hormone peptide. Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the Seidman *et al.* reference does not teach or suggest Applicant's claimed invention. The Seidman *et al.* reference fails to disclose an expression vector comprising a nucleic acid sequence encoding a natriuretic hormone peptide wherein the natriuretic hormone peptide comprises a Glycine at the amino terminus of the peptide. The Seidman *et al.* reference also does not teach or suggest SEQ ID NO:5. For example, a comparison of SEQ ID NO:5 of the subject application and the coding block II of Figure 3 of Seidman *et al.*, shows that the two amino acid sequences are different. A brief comparison of the Seidman *et al.* sequence adapted from Figure 3 and SEQ ID NO:5, is shown below:

SEQ ID NO:5: GSPWDPSDRSALLKSKLRALLAGPRSLRR

Seidman mouse sequence: RRSPWDPSDRSALLKSKLRALLAGPRSLRR

Thus, any sequence that might be taught by the Seidman *et al.* reference is clearly not the same as SEQ ID NO:5. In addition, Seidman *et al.* discloses a human amino acid sequence that is also different than the peptide sequence of Applicant's claimed invention. Moreover, the Seidman *et al.*

reference does not teach or suggest a peptide having the amino acid sequence of SEQ ID NO:6. Reconsideration and withdrawal of the rejection under 35 USC §102(b) is respectfully requested.

Claims 13, 15, 20, 21, 23-25, and 27-30 are rejected under 35 USC §102(b) as being anticipated by Shimkets (U.S. Patent No. 6,013,630). The Examiner asserts that the Shimkets patent teaches a peptide that is identical to the peptide of SEQ ID NO: 5 of the subject application. Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the Shimkets patent does not teach or suggest Applicant's claimed invention. The Shimkets patent does not disclose, a natriuretic hormone peptide that comprises a Glycine at the amino terminus of the peptide or a natriuretic hormone peptide having an amino acid sequence of SEQ ID NO:5 or SEQ ID NO:6.

The Shimkets patent discloses a 28 amino acid peptide in which Serine is substituted for Glycine in the first position of the peptide, corresponding to position 100 of the human prepro ANP peptide (see column 4, lines 16-24). A comparison of the sequence of the Shimkets peptide as adapted from Figure 5 and SEQ ID NO:5 from the subject application, is shown below:

SEQ ID NO:5: GSPWDPSDRSALLKSKLRALLAGPRSLRR

Shimkets Peptide: SPWDSSDRSALLKSKLRALLTAPRSLRR

Applicant notes that SEQ ID NO:5 of the subject application is a 29 amino acid mouse peptide in which a Serine occurs at a position between Glycine and Proline, with Glycine present at the first position of the peptide. However, the Shimkets patent, as shown above, teaches substitution of an amino acid Glycine with a residue from the group consisting of serine, threonine, and tyrosine, preferably, serine (see column 5, lines 1-16). Since Shimkets fails to disclose a natriuretic hormone peptide that comprises a Glycine at the amino terminus position of the peptide or a peptide having the amino acid sequence of SEQ ID NO:5 or SEQ ID NO:6, Applicant's claimed invention is not anticipated by, or obvious over, the Shimkets patent. Accordingly, reconsideration and withdrawal of the rejection under 35 USC §102(b) is respectfully requested.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicant's agreement with or acquiescence in the Examiner's position. Applicant expressly reserves the right to pursue the invention(s) disclosed in the subject application, including any subject matter canceled or not pursued during prosecution of the subject application, in a related application.

In view of the foregoing remarks and amendments to the claims, Applicant believes that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

Applicant invites the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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DRP/jil/mv/kmm

Attachments: Petition and Fee for Extension of Time  
Submission of Sequence Listing and Statement  
Substitute Sequence Listing on paper and CRF  
Amendment Transmittal Letter